

0.0625 is needed. If the illumination system is supposed to illuminate this aperture homogeneously and independent from the field up to a filling degree of $\sigma = 0.6$, for example, the EUV-source must have the following 2-dim Lagrange optical invariant or *etendu*: (LC).

Page 4, line 4: ✓

$$LC_{\text{ill.}} = \sigma^2 LC_{\text{Obj}} = 0.149 \text{ mm}^2 - 0.928 \text{ mm}^2$$

Page 4, paragraph starting at line 13: ✓

The Etendu of a laser plasma source is defined as the product of the illuminated surface of an imaginary unit sphere around the source and the square of the aperture angle at which each field point of the imaginary unit source sees the spherical source.

Page 4, line 19: ✓

$$A^{\text{LPQ}} = 2\pi[\cos(\theta_1) - \cos(\theta_2)] \times (R_{\text{sphere}})^2, \text{ with } R_{\text{sphere}} = 1 \text{ mm}$$

Page 4, line 20: ✓

$$NA \approx r^{\text{LPQ}} / R_{\text{sphere}} = 0.100$$

Page 5, line 12: ✓

$$LC_{\text{Pinch}} = A \cdot NA^2 = (\pi \cdot 1 \text{ mm}^2 / 4) \cdot 0.3053^2 = 0.073 \text{ mm}^2.$$

Page 9, paragraph starting at line 29: ✓

Regarding the basic layout of EUV-illumination systems, we refer to the applicant's pending applications EP 99 1 06348.8, submitted on March 2, 1999, entitled